Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Withdrawn-Currently Amended) A method for producing a microbattery comprising:

providing a perforated conductive substrate, said perforated conductive substrate comprising a plurality of cavities formed therein;

electrochemically forming a thin film cathodic layer on at least one surface of said conductive substrate, said cathodic layer comprising at least one material selected from the group consisting of ~~sulfides of copper,~~ sulfides of cobalt, sulfides of tungsten~~, oxides of copper, oxides of cobalt, oxides of tungsten~~ and mixtures thereof;

subsequently forming a thin film electrolyte layer over said cathodic layer; and

subsequently forming a thin film anodic layer over said electrolyte layer,

said forming a thin film cathodic layer, said forming a thin film electrolyte layer and said forming a thin film anodic layer comprising depositing said thin film cathodic layer, said thin film electrolyte layer and said thin film anodic layer between said cavities and throughout the inner surfaces of said cavities.

2-3. (Cancelled)

4. (Withdrawn) A method according to claim 1 and wherein said providing comprises:

providing a non-conductive substrate; and

forming a conductive layer on at least one surface of said non-conductive substrate.

5. (Withdrawn) A method according to claim 4 and wherein said forming a conductive layer comprises electrolessly depositing a conductive material on said surface of said non-conductive substrate.

6. (Withdrawn) A method according to claim 5 and wherein said conductive material comprises at least one material selected from the group consisting of Cu, Ni, Co, Fe, Au, Ag, Pd, Pt and their alloys.

7. (Withdrawn) A method according to claim 1 and wherein said cavities have an arbitrary shape and an aspect ratio greater than 1.

8. (Withdrawn) A method according to claim 1 and wherein said cathodic layer, said electrolyte layer and said anodic layer are continuous.

9. (Withdrawn) A method according to claim 7 and wherein said cavities have an aspect ratio of between 2 to about 50.

10. (Withdrawn) A method according to claim 7 and wherein said cavities have a cylindrical geometry.

11. (Withdrawn) A method according to claim 1 and wherein said substrate comprises at least one material selected from the group consisting of glass, alumina, semiconductor materials, ceramic materials, organic polymers, inorganic polymers and glass-epoxy composites.

12. (Withdrawn) A method according to claim 1 and wherein said substrate comprises silicon.

13. (Withdrawn-Currently Amended) A method according to claim 1 and wherein said cathodic layer comprises at least one material selected from the group consisting of ~~Cu_2S,~~ Co_xS_y where x=1-4 and y=1-10, ~~Co_mO_n where m=1-2 and n=1-3,~~ WS_2, and mixtures thereof.

14. (Withdrawn-Currently Amended) A method for producing a thin film cathode comprising:

providing a perforated conductive substrate, said perforated conductive substrate comprising a plurality of cavities formed therein; and

electrochemically forming a thin film cathodic layer on at least one surface of said conductive substrate, said cathodic layer comprising at least one material selected from the group consisting of ~~sulfides of copper,~~ sulfides of cobalt, sulfides of tungsten~~, oxides of copper, oxides of cobalt, oxides of tungsten~~ and mixtures thereof,

said forming a thin film cathodic layer comprising depositing said thin film cathodic layer between said cavities and throughout the inner surfaces of said cavities.

15. (Cancelled)

16. (Withdrawn) A method according to claim 14 and wherein said providing comprises:

providing a non-conductive substrate; and

forming a conductive layer on at least one surface of said non-conductive substrate.

17. (Withdrawn) A method according to claim 16 and wherein said forming a conductive layer comprises electrolessly depositing a conductive material on said surface of said non-conductive substrate.

18. (Withdrawn) A method according to claim 17 and wherein said conductive material comprises at least one material selected from the group consisting of Cu, Ni, Co, Fe, Au, Ag, Pd, Pt and their alloys.

19. (Withdrawn) A method according to claim 14 and wherein said cavities have an arbitrary shape and an aspect ratio greater than 1.

20. (Withdrawn) A method according to claim 14 and wherein said cathodic layer is continuous.

21. (Withdrawn) A method according to claim 19, wherein said cavities have an aspect ratio of between 2 to about 50.

22. (Withdrawn) A method according to claim 19, wherein said cavities have a cylindrical geometry.

23. (Withdrawn) A method according to claim 14 wherein said substrate comprises at least one material selected from the group consisting of glass, alumina, semiconductor materials, ceramic materials, organic polymers, inorganic polymers and glass-epoxy composites.

24. (Withdrawn) A method according to claim 14, wherein said substrate comprises silicon.

25. (Withdrawn-Currently Amended) A method according to claim 14, wherein said cathodic layer comprises at least one material selected from the group consisting of ~~Cu_2S,~~ Co_xS_y where x=1-4 and y=1-10, ~~Co_mO_n where m=1-2 and n=1-3,~~ WS_2, and mixtures thereof.

26. (Currently Amended) A microbattery comprising:

a perforated conductive substrate, said perforated conductive substrate including a plurality of cavities formed therein;

a thin film cathodic layer electrochemically formed on at least one surface of said conductive substrate, said cathodic layer comprising at least one material selected from the group consisting of ~~sulfides of copper,~~ sulfides of cobalt, sulfides of tungsten~~, oxides of copper, oxides of cobalt, oxides of tungsten~~ and mixtures thereof;

a thin film electrolyte layer formed over said cathodic layer; and

a thin film anodic layer formed over said electrolyte layer,

said cathodic layer, said electrolyte layer and said anodic layer being deposited between said cavities and throughout the inner surfaces of said cavities.

27-28. (Cancelled)

29. (Original) A microbattery according to claim 26 and wherein said conductive substrate comprises:

a non-conductive substrate;

a conductive layer formed over at least one surface of said non-conductive substrate.

30. (Original) A microbattery according to claim 29 and wherein said conductive layer comprises a conductive material electrolessly deposited on said surface of said non-conductive substrate.

31. (Original) A microbattery according to claim 29, wherein said conductive layer comprises at least one material selected from the group consisting of Cu, Ni, Co, Fe, Au, Ag, Pd, Pt and their alloys.

32. (Previously Presented) A microbattery according to claim 26 and wherein said cavities have an arbitrary shape and an aspect ratio greater than 1.

33. (Previously Presented) A microbattery according to claim 26 and wherein said cathodic layer, said electrolyte layer and said anodic layer are continuous.

34. (Original) A microbattery according to claim 32, wherein said cavities have an aspect ratio of between 2 to about 50.

35. (Original) A microbattery according to claim 32, wherein said cavities have a cylindrical geometry.

36. (Original) A microbattery according to claim 26 and wherein said substrate comprises at least one material selected from the group consisting of glass, alumina, semiconductor materials, ceramic materials, organic polymers, inorganic polymers and glass-epoxy composites.

37. (Original) A microbattery according to claim 26, wherein said substrate comprises silicon.

38. (Currently Amended) A microbattery according to claim 26, wherein said cathodic layer comprises at least one material selected from the group consisting of ~~Cu_2S,~~ Co_xS_y where x=1-4 and y=1-10, ~~Co_mO_n where m=1-2 and n=1-3,~~ WS_2, and mixtures thereof.

39. (Withdrawn-Currently Amended) A thin film cathode comprising:

a perforated conductive substrate, said perforated conductive substrate including a plurality of cavities formed therein; and

a thin film cathodic layer electrochemically formed on at least one surface of said conductive substrate, said cathodic layer comprising at least one material selected from the group

consisting of ~~sulfides of copper,~~ sulfides of cobalt, sulfides of tungsten~~, oxides of copper, oxides of cobalt, oxides of tungsten~~ and mixtures thereof,

said cathodic layer being deposited between said cavities and throughout the inner surfaces of said cavities.

40. (Cancelled)

41. (Withdrawn) A thin film cathode according to claim 39 and wherein said conductive substrate comprises:

a non-conductive substrate; and

a conductive layer formed over at least one surface of said non-conductive substrate.

42. (Withdrawn) A thin film cathode according to claim 41 and wherein said conductive layer comprises a conductive material electrolessly deposited on said surface of said non-conductive substrate.

43. (Withdrawn) A thin film cathode according to claim 41 and wherein said conductive layer comprises at least one material selected from the group consisting of Cu, Ni, Co, Fe, Au, Ag, Pd, Pt and their alloys.

44. (Withdrawn) A thin film cathode according to claim 39 and wherein said cavities have an arbitrary shape and an aspect ratio greater than 1.

45. (Withdrawn) A thin film cathode according to claim 39 and wherein said cathodic layer is continuous.

46. (Withdrawn) A thin film cathode according to claim 44, wherein said cavities have an aspect ratio of between 2 to about 50.

47. (Withdrawn) A thin film cathode according to claim 44, wherein said cavities have a cylindrical geometry.

48. (Withdrawn) A thin film cathode according to claim 39 wherein said substrate comprises at least one material selected from the group consisting of glass, alumina, semiconductor materials, ceramic materials, organic polymers, inorganic polymers and glass-epoxy composites.

49. (Withdrawn) A thin film cathode according to claim 39, wherein said substrate comprises silicon.

50. (Withdrawn-Currently Amended) A thin film cathode according to claim 39, wherein said cathodic layer comprises at least one material selected from the group consisting of ~~Cu_2S,~~ Co_xS_y where x=1-4 and y=1-10, ~~Co_mO_n where m=1-2 and n=1-3,~~ WS_2, and mixtures thereof.